METHOD FOR DETECTING CARCINOGENESIS OF MATERIAL TO BE INSPECTED

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Abstract

PURPOSE:To detect a carcinogenic substance at high reproducibility through simple operation from the color developing rate of the cell of an internal organ of an animal by causing a color developing reagent to act on the cell after making a PCNA monoclonal antibody react to the cell a fixed period after dosing the cell with a substance to be inspected.

CONSTITUTION:A PCNA monoclonal antibody reacts to PCNA-positive cells of hepatic cells in a proliferation period. The reaction between hepatic cells and the monoclonal antibody is caused to occur by removing unreacted enzyme labeled antibodies after extracting and fixing the liver of an animal, preparing a slice of the liver by burying the liver in paraffin, and removing the paraffin from and giving a hydrophilic property to the slice, and causing the antibody to react to enzyme labeled antibodies. The PCNA monoclonal antibody is obtained by cultivating the ascites of a mouse or a cell strain which produces an antibody in vitro and separating and refining the supernatant liquid by using Protein-A Sepharose(R), etc. The carcinogenesis of an object to be inspected can be detected when the ratio of PCNA-positive cells to all substantial hepatic cells is found by detecting the PCNA-positive cells by using a color former after causing a reaction between hepatic cells and enzyme-labeled antibodies and removing unreacted antibodies.